First Preliminary Amendment

## **AMENDMENTS TO THE CLAIMS**

Docket No.: 41557-236442

Please delete claims 1-13, and replace them with the following new claims:

14. (New) A CCD imager of the type having an image area in which charge is generated and clocked to an output, comprising an image area divided into a plurality of channels by channel edges, at least some of the channels being further divided by path defining structures to create at least a principal path and one or more secondary paths; the principal and one or more secondary paths being arranged such that charge overflowing from the principal path during charge transfer is retained within the one or more secondary paths before the channel edges.

- 15. (New) A CCD imager according to claim 14, wherein the secondary paths are arranged to converge on the principal path.
- 16. (New) A CCD imager according to claim 14, wherein the principal path is defined at one side of the channel.
- 17. (New) A CCD imager according to claim 14, wherein, the principal path is defined in the middle of the channel.
- 18. (New) A CCD imager according to claim 14, wherein the width of the channel is divided into the principal path and two or more secondary paths.
- 19. (New) A CCD imager according to claim 14, wherein the path defining structures allow signal charge above a predetermined amount to spill from either the principal path or a secondary path into an adjacent secondary path.
- 20. (New) A CCD imager according to claim 14, comprising an anti-blooming structure disposed adjacent the channel edge in a path other than the principal path.

Application No. Not Yet Assigned Amendment dated September 18, 2006 First Preliminary Amendment

21. (New) A CCD imager according to claim 14, wherein the path defining structures comprise compensating barrier implants.

Docket No.: 41557-236442

- 22. (New) A CCD imager according to claim 14, wherein the path defining structures comprise additional buried channel implants.
  - 23. (New) A CCD imager according to claim 14, wherein the path has a V-shaped potential profile.
- 24. (New) A CCD imager according to claim 14, wherein the principal path is through the channel and the one or more secondary paths are across the channel width; the principal and one or more secondary paths being arranged such that charge spilling from the principal path fills the adjacent secondary paths in turn such that the minimum width of the channel is used to transfer the charge.
- 25. (New) A CCD imager according to claim 14, wherein the channel is formed in a serial register.
- 26. (New) A CCD imager according to claim 14, wherein the path defining structures are arranged such that in use signal charge generated across the entire width of the channel is fed into the principal path from the secondary paths.